

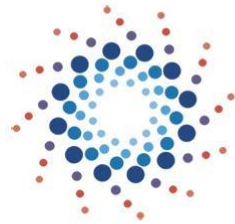
Welcome to the 2023 U.S. DOT Small Business Innovation Research (SBIR) Webinar

- ❑ The webinar will begin shortly.
- ❑ This webinar will be view and listen only; **all attendees are muted**. Instructions will be provided on how to submit a question.
- ❑ Closed-captioning is available.
- ❑ If participating using a web browser, update to the latest version and allow pop-ups to participate in polls in today's webinar.
- ❑ This webinar is being recorded. As soon as possible after the webinar, the recording will be posted to <https://www.volpe.dot.gov/work-with-us/small-business-innovation-research>.





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Pre-Offer Webinar

U.S. DOT Small Business Innovation Research (SBIR) Program

Solicitation No. 6913G623QSBIR1

February 9, 2023

Welcome to the SBIR Pre-Offer Webinar

- ❑ We encourage you to hold your questions until after we have presented the information. Most of your questions will be answered in the slides and in the solicitation.
- ❑ Any statements or remarks made during the webinar shall not alter the terms of the solicitation.
- ❑ The terms and conditions of the solicitation remain unchanged unless an amendment is issued that incorporates any changes discussed or alluded to during the webinar.

Presenters

Rachael Sack

Chief, Innovative Research
Division, Volpe Center, and
U.S. DOT SBIR Program Director

Darren Shaffer

U.S. DOT SBIR Contracting Officer

Tammy Taylor

U.S. DOT SBIR Contracting Officer



Today's Agenda

- ❑ Webinar Q&A Instructions
- ❑ SBIR Overview
- ❑ Eligibility and Requirements
- ❑ Offer Preparation
- ❑ Solicitation Appendices
- ❑ Evaluation Factors, Award Information, and Submission of Offers
- ❑ SBIR FY 2023 Topics
- ❑ U.S. DOT/OIG Fraud Awareness
- ❑ Important Dates and Reminders



Webinar Q&A Instructions

- ❑ The chat pod is disabled; please use the Q&A function to submit questions.
- ❑ The Government will answer questions as time allows.
- ❑ Unanswered questions may be submitted to DOTSBIR@dot.gov directly after the webinar.
- ❑ Answers to questions submitted via email not already found in the Solicitation or existing FAQs will be added to the “FAQs” section of the U.S. DOT SBIR Program website:
<https://www.volpe.dot.gov/work-with-us/small-business-innovation-research/faqs>
- ❑ No verbal or written questions regarding the solicitation topics will be accepted. Please visit [UserVoice](#) to view topic questions asked during the pre-solicitation.



Polling Questions

1. Have you applied to a DOT SBIR before? (yes/no)
2. Do you work in the transportation sector? (yes/no)





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SBIR Overview

SBIR Overview

- ❑ Congress established the SBIR Program to:
 - Stimulate technological innovation,
 - Utilize small business to meet federal research and development needs,
 - Encourage participation by minority and disadvantaged businesses in technological innovation and,
 - Increase private-sector commercialization of innovations derived from federal R&D.

How SBIR Supports the Mission of U.S. DOT

- ❑ The mission of U.S. DOT is “to ensure America has the safest, most efficient and modern transportation system in the world, which boosts our economic productivity and global competitiveness and enhances the quality of life in communities both rural and urban.”
- ❑ SBIR addresses high-priority research gaps within U.S. DOT’s R&D Program.
- ❑ Topics are developed to align with the Secretary’s strategic priorities and specific modal priorities.



U.S. DOT Strategic Goals and Statutory Mandates

DOT Strategic Goals (FY 2022-2026)



49 U.S.C Chapter 65 (Research Planning) - Primary Purposes of Transportation Research

- ☐ Promoting safety
- ☐ Reducing transportation cybersecurity risks
- ☐ Improving mobility of people and goods
- ☐ Reducing congestion
- ☐ Improving the durability and extending the life of transportation infrastructure
- ☐ Preserving the existing transportation system
- ☐ Preserving the environment

<https://www.transportation.gov/dot-strategic-plan>



U.S. DOT RD&T Strategic Plan



- Establishes a strategic research vision
- Defines research priorities to guide DOT research
- Commits to industry collaboration to accelerate technology commercialization and deployment

<https://www.transportation.gov/rdtstrategicplan>

Snapshot of Phase I Participation in U.S. DOT's SBIR Program by Agency

DOT Operating Administration	2019	2020	2021	2022	2023
Federal Highway Administration/ ITS Joint Program Office	X	X	X	X	X
Federal Railroad Administration	X	X	X	X	X
Federal Transit Administration	X		X	X	
Federal Motor Carrier Safety Administration	X		X		
National Highway Traffic Safety Administration	X	X	X		X
Office of the Secretary	<i>Provides support across Department</i>				
Pipeline and Hazardous Materials Safety Administration	X	X	X	X	X



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Eligibility and Requirements

Section I of Solicitation

Eligibility and Requirements

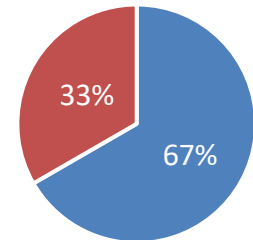
- ❑ Who qualifies as a “small business concern” (SBC) for an SBIR Phase I & II?
 - Organized as for-profit U.S. business.
 - 500 or fewer employees including affiliates.
 - Greater than 50% U.S. owned by individuals and independently operated (with few exceptions).
- ❑ See 13 CFR § 121.702 for SBA’s definition for the term “small business concern.”



Eligibility and Requirements (cont.)

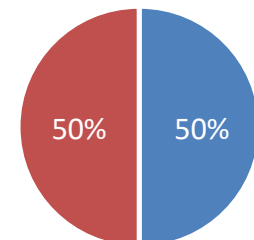
- ❑ For Phase I, a minimum of **two-thirds** of the research or analytical effort, measured in total contract dollars (67%), must be performed by the awardee.
- ❑ For Phase II, a minimum of **one-half** of the research or analytical effort, measured in total contract dollars (50%), must be performed by the awardee.

Minimum Requirement Phase I



■ Awardee ■ Subcontracts

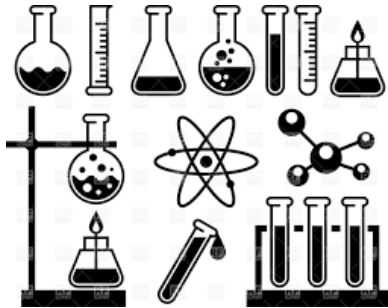
Minimum Requirement Phase II



■ Awardee ■ Subcontracts



Eligibility and Requirements (cont.)



- ❑ More than one-half of the principal investigator's employment time is spent working for the small business. This typically precludes full-time employment with another organization.



- ❑ The R/R&D work must be performed in the United States (with few exceptions and only if written approval in advance) for Phase I, II, and IIB.



Eligibility and Requirements (cont.)

- ❑ U.S. DOT elects at this time not to use the authority that would allow venture capital operating companies (VCOCs), hedge funds, or private equity firms to participate in the SBIR Program. Offers submitted by these parties will not be evaluated or considered for award.

Foreign Disclosure Notice

The SBIR and STTR Extension Act of 2022 (P.L. 117-183), Section 4(c)

- ❑ Each SBC submitting a proposal or application for a federally funded award is required to disclose information regarding ties to the People's Republic of China or another foreign country.
- ❑ U.S. DOT anticipates this requirement will be implemented prior to FY23 Phase I awards.
- ❑ U.S. DOT reserves the right to obtain such disclosure notice for potential award consideration





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Offer Preparation

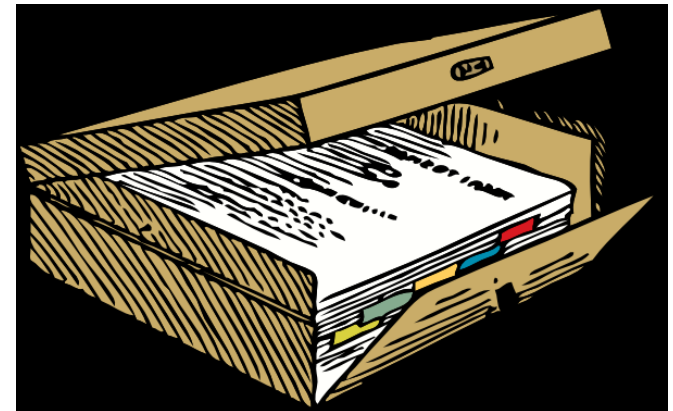
Section II of Solicitation

Offer Layout – Initial Offer

See Section II(B)(2) for detailed instructions!

Submit four files:

1. Technical (PDF)
2. Appendices A and B (one PDF)
3. Contract Pricing Worksheet (Appendix C) (Excel)
4. Contract Pricing Worksheet Supporting Documentation (PDF)



Phase I Offer Submission Process DO's and DON'T's

DO...

- ❑ Read the Solicitation and follow **all** the instructions for submission.
- ❑ Review the research topic Q&A from the pre-solicitation forum.
- ❑ Check to ensure completed appendices are included.
- ❑ Double check all cost figures and calculations; align to supporting documentation.
- ❑ Sign and date Appendix A.



DO NOT ...

- ❑ Send offers via email.
- ❑ Submit duplicate offers.
- ❑ Ask the Program Office for guidance on whether or not your company should submit an offer.
- ❑ Create arbitrary overhead, indirect, or profit/fee rates.
- ❑ Wait until the deadline to submit your offer.

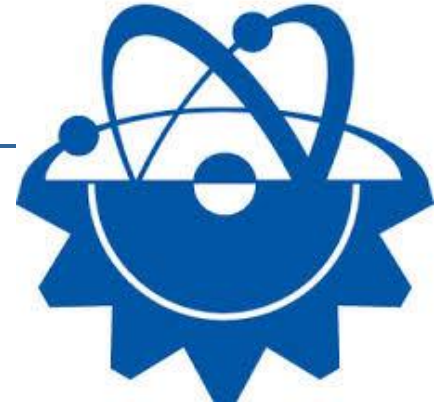


Technical Section

See Section II(B)(6) for detailed instructions!

Ensure that:

- ❑ Layout guidance and section organization instructions are followed.
- ❑ The offer aligns with the scope of the research topic.
- ❑ Qualifications for key personnel in addition to the PI are provided.
- ❑ A detailed and well-organized work plan is provided.



Required Registrations

- ❑ Register in System for Award Management (SAM) <https://www.sam.gov/portal/SAM/>. SAM is where businesses are assigned a Unique Entity Identification (UEI) Number
- ❑ Register for a Small Business Administration Small Business Concern ID Number (SBA SBC ID) <https://www.sbir.gov/registration>.





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Solicitation Appendices

Section VII of Solicitation

Required Appendices

Available on U.S. DOT SBIR website

Download Format:

- ❑ Signature Page (Appendix A) – PDF
 - ❑ Project Summary (Appendix B) – PDF
 - ❑ Contract Pricing Worksheet (Appendix C) – MS Excel
- } 1 combined PDF



Upload Format:

- ❑ Contract Pricing Worksheet (Appendix C) – MS Excel
- ❑ All other offer documents shall be submitted in Adobe pdf format






Appendix C - Pricing Information





- ❑ Carefully read the SBIR Phase I Pricing Instructions within Appendix C (Contract Pricing Worksheet).
- ❑ Provide supporting information for all costs proposed so that the Government may award your contract promptly.
- ❑ Any cost that is not supported may cause the offer amount to be reduced.



Appendix C - Price Information

Schedule	Appendix C - Element	Guidance
A 	Indirect Costs	Provide DCAA Indirect Rate Agreements to support indirect rates proposed. If not available, provide detailed cost elements of indirect rates to support rate(s) proposed.
B 	Direct Labor	Provide supporting documentation such as payroll data, online comparisons, Dept. of Labor reference information, etc.
C - E 	Materials/Equipment/ Special Test Equipment/Special Tooling	Provide quotes, internet pricing sheets, or other backup to support proposed unit pricing.

Appendix C - Price Information (cont.)

Schedule	Appendix C - Element	Guidance
F & G 	Subcontracts & Consultants	Offeror must provide complete cost details for subcontract amount, e.g., quote from proposed subcontractor; include a letter of commitment for any proposed consultant.
H 	Travel	Travel is allowable, however unusual for Phase I projects. If proposed, clearly define travel details and proposed costs.
I 	Other Direct Costs (ODC)	Provide internet quote or other backup to support ODCs proposed.
J 	Narrative	Provide a detailed explanation for all costs proposed, which will allow your offer to be analyzed quicker and your contract to be awarded sooner.





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Evaluation Factors, Award Information, and Submission of Offers

Sections III, IV, and V of Solicitation

Evaluation Criteria for Phase I

1. **Technical Merit and Feasibility**

Demonstration of understanding of the problem and solution alignment with the topic description; innovative approach; scientific feasibility.

2. **Experience, Qualifications, and Facilities**

Description of technical personnel, equipment and facilities, and partnerships/subcontracts (when applicable).

3. **Effectiveness of Proposed Work Plan**

Clarity of technical plan and timeline.

4. **Commercial Potential**

Market understanding and awareness of regulatory, compliance, or legal issues.

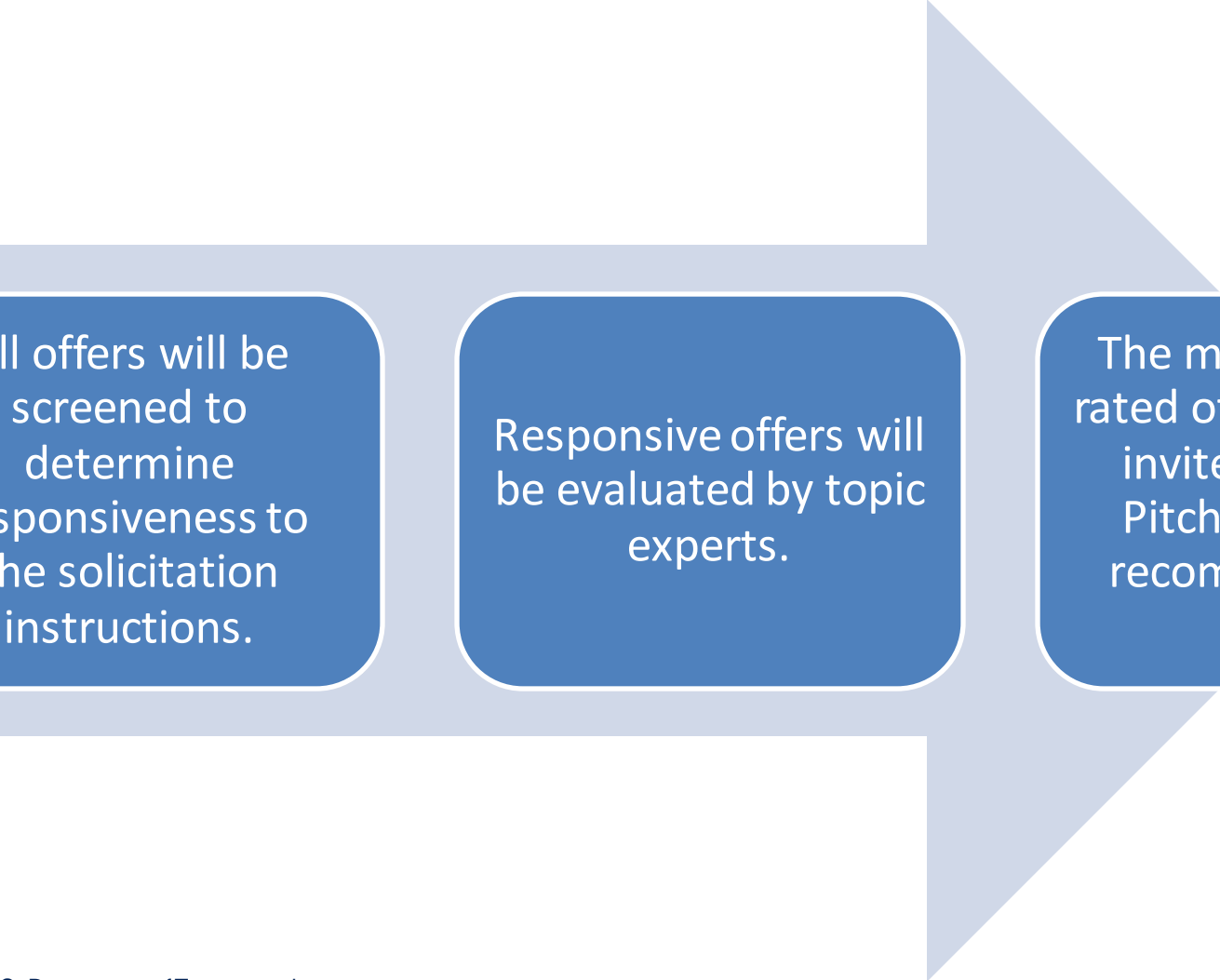
5. **Offer Quality**

Quality of narrative and supporting evidence.



Evaluation Process for Phase I

Initial Evaluation



All offers will be screened to determine responsiveness to the solicitation instructions.

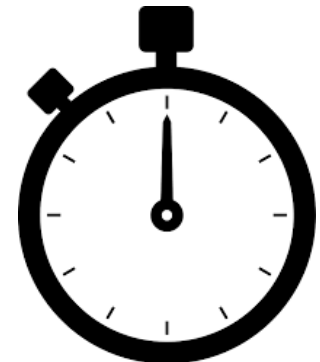
Responsive offers will be evaluated by topic experts.

The most favorably rated offerors may be invited to attend Pitch Day and/or recommended for award.



Pitch Day Information

- ❑ Pitch Day will be a virtual event on or around **May 8-11, 2023**.
- ❑ 15 minutes (timed) to present pitch decks.
- ❑ 15 minutes (timed) for evaluators to ask questions.

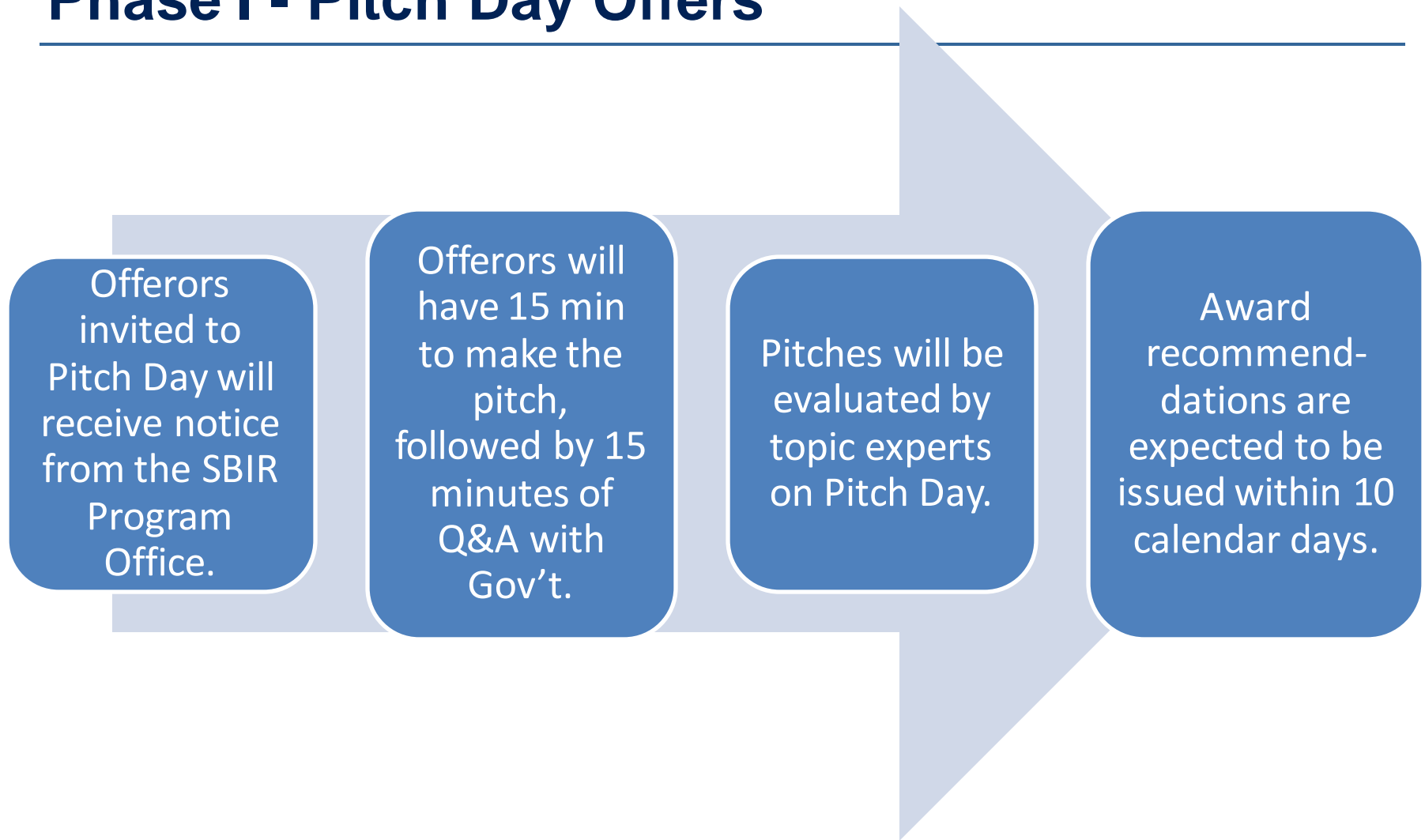


Pitch Day: Evaluation Criteria & Requirements

- ❑ Same evaluation factors as initial offer.
- ❑ **See Solicitation Section II(B)(7) for detailed instructions.**
- ❑ Invitation only and separate from the initial submission.
- ❑ Invited offerors must submit a pitch deck in MS PowerPoint or PDF.
- ❑ There is neither a set format for the slides nor required content.
- ❑ Slides will only be accepted from offerors invited to Pitch Day by the Government.



Evaluation & Recommendation Process for Phase I - Pitch Day Offers



Submitting an Offer

Offers must be received no later than **3:00 p.m. ET on Tuesday, March 7, 2023**, through U.S. DOT's automated proposal website at https://usg.valideval.com/teams/usdot_2023/signup.

- ❑ Offers received after that time will be automatically rejected; no exceptions will be permitted.
- ❑ Requires answering several questions and is a multi-step process.
- ❑ Allow ample time to complete the process.
- ❑ Offers will not be considered received until the process is complete.
- ❑ Submit offers as early as possible.
- ❑ Files can only be uploaded in correct format.



Award Information



- ❑ All Phase I awards will be Firm-Fixed-Price bilateral purchase orders.
- ❑ The period of performance for a Phase I award shall be no longer than 6 months.
- ❑ Under Phase I SBIR awards, three reports will be required, consisting of two interim narrative reports and a comprehensive final report.
- ❑ Payments for Phase I efforts will be made in three equal installments for report deliverables upon submission of an acceptable report and invoice, in accordance with instructions in the award document.



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U.S. DOT SBIR FY 2023 Topics

Section VIII of Solicitation

FY 2023 Topics

U.S. DOT Operating Administration	Topic Number & Title	Est. Award Amount Phase I
Federal Highway Administration (FHWA)	23-FH1: Addressing Stormwater Runoff with a Self-Contained Portable Treatment System	\$150,000
	23-FH2: Traffic Monitoring and In Situ Information Processing Using Edge Computing	\$150,000
Federal Railroad Administration (FRA)	23-FR1: Concrete Crosstie Inspection Technology	\$150,000
	23-FR2: Novel Design for Passenger Railcar Glazing Securement	\$150,000
National Highway Traffic Safety Administration (NHTSA)	23-NH1: Child Presence Detection CO2 Release Test Device	\$150,000
	23-NH2: Immersive Virtual Reality Training on Impaired Driving for Law Enforcement	\$150,000



FY 2023 Topics (cont.)

U.S. DOT Operating Administration	Topic Number & Title	Est. Award Amount Phase I
Pipeline and Hazardous Materials Safety Administration (PHMSA)	23-PH1: Bioremediation for Hazardous Material Spills	\$200,000
	23-PH2: Integrated RFID Trackers and Sensors for Hazardous Material Communication in Transportation	\$200,000
	23-PH3: Portable State-of-Charge Sensor for Lithium Batteries	\$200,000
	23-PH4: Wearable PPE-integrated Sensors for First Responders	\$200,000

Topic Funding Considerations

- ❑ Offers that exceed the Phase I Estimated Award Amount stated in the Solicitation will not be considered for award. **Pay close attention to this amount per topic, as not all topics have the same estimated award amount.**
- ❑ The Phase II funding level noted is an estimate only and is subject to the availability of funds and/or the technical requirements to accelerate the development of a commercial product/innovation. Any changes to the Phase II estimated funding level listed will be communicated to small business Phase I awardees when instructions on the Phase II process are sent, approximately 1 month prior to the end of the Phase I project.





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Fraud, Waste, and Abuse

Highlights from OIG Training



Fraud Defined

- Fraud is described as any false representation about a **material fact or any intentional deception** designed to deprive the United States unlawfully of something of value or to secure from the United States a benefit, privilege, allowance, or consideration to which an individual or business is not entitled."
- OIG does **not** prosecute innocent mistakes. Although the statute requires knowledge that the claim was false, the term "knowledge" includes "deliberate ignorance" or "reckless disregard for the truth."
- Fraud can be committed by government contractors and subcontractors, as well as by agency personnel.



Four Main Types of Fraud

It is important to note that the presence of one or more indicators does not prove fraud, nor are the indicators shown all-inclusive for each of the schemes described.

- Misrepresentations or factual omissions
- Misrepresentation of expended funds
- Misuse of award funds
- Duplication of funds

Reporting



To learn more, visit DOT's SBIR website and view the Annual SBIR Training on Fraud, Waste and Abuse at:

<https://www.volpe.dot.gov/work-with-us/small-business-innovation-research/fraud-waste-abuse-annual-training>



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Important Dates and Reminders

Page i of Solicitation

FY 2023 Solicitation Schedule

Milestone	Date
FY 2023 Solicitation Opened	February 7, 2023
Administrative and Appendix C Cost Questions Due	March 1, 2023, 5:00 p.m. (ET)
FY 2023 Solicitation Closes*	March 7, 2023, 3:00 p.m. (ET)
Pitch Day (invitation only)	May 8-11, 2023
Recommendations for Award	Within 90 Days of Solicitation Close
Awards Processed	June/July 2023

*** Please allow sufficient time to submit your offer. The submittal process may take several minutes to complete due to a multi-step process. Applicants are encouraged to submit their offers as early as possible.**



Important Reminders

- ❑ Review the offer before submission to ensure:
 - Documents requiring signatures are signed and dated.
 - The research and analytical effort and the PI's employment status meet eligibility requirements.
 - Supporting documentation for prices proposed is included.
- ❑ Allow sufficient time to submit an offer; the submittal process may take several minutes to complete due to a multi-step process.
- ❑ Double check that documents submitted are the correct/final versions.
- ❑ Check the FAQs on DOT's SBIR website before submitting questions: <https://www.volpe.dot.gov/work-with-us/small-business-innovation-research/faqs>.





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Thank you
for your attendance at
this pre-offer webinar.